A comprehensive study of the voltage gated potassium channel Kv4.3

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Stellingen

behorende bij het proefschrift

A comprehensive study of the voltage-gated potassium channel Kv4.3 - From functional analysis to molecular dynamics modelling

1. SCA19/22 mutations in the Kv4.3 channel manifest their functional effect in the presence of the auxiliary protein KChIP2b. (this thesis)

2. Molecular dynamics simulations, not only complement but also guide the work of electrophysiologists. (this thesis)

3. *De novo* and inherited SCA19/22 mutations reduce A-type potassium current at subthreshold membrane potentials. (this thesis)

4. Amino acid methionine 373 located at the exit of the pore in Kv4.3 modulates single-channel conductance. (this thesis)

5. Lipids, potassium ions, and Kv4.3 protein are the essential cellular components for the generation of the A-type potassium current. (this thesis)

6. Science grows by its mu answers more than by its yes or no answers. (Robert M. Pirsig)

7. It's always further than it looks. It's always taller than it looks. And it's always harder than it looks. (Reinhold Messner)

8. It is easy to obtain confirmations or verifications, for nearly every theory—if we look for confirmations. (Karl Popper)

9. The life experiment does not fit into a scientific paper. (Clarissa Haas)

Claudio Tiecher, 18 December 2019